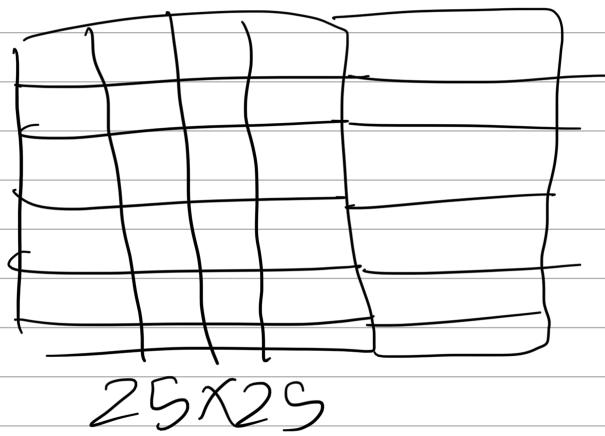
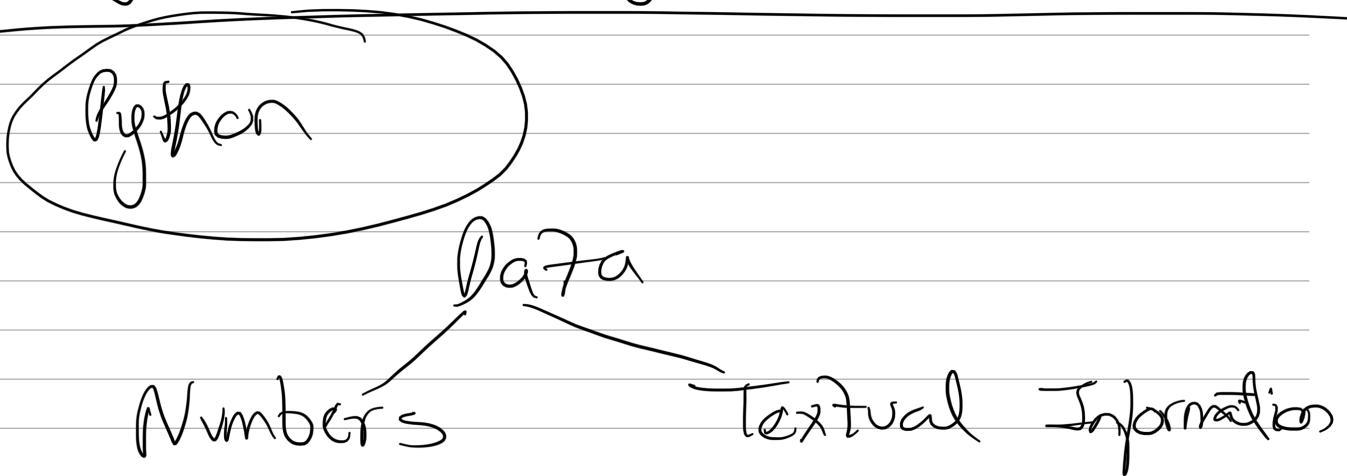


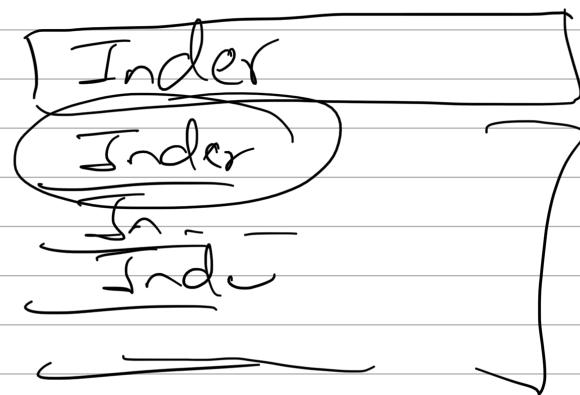
Language → Rules  
Python → Syntax



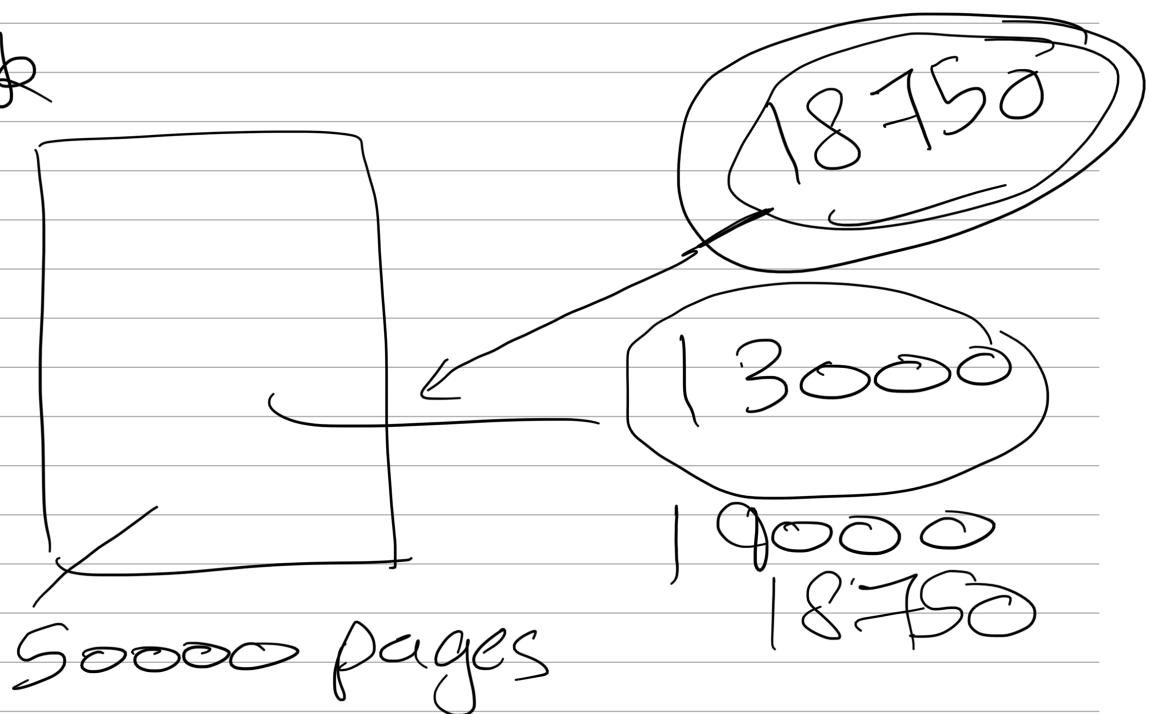
# Data Structures

→ Efficiently  
→ Faster

Contacts



Book



1.  
2.  
3.  
X

18750

2.  
Efficient

Primitive → Fundamental  
Any data in the World

Primitive DS



Int:  $\{ \frac{5}{21}, \frac{11}{15}, -\frac{1}{6}, -17 \}$

$a=3$ ,  $b=5$ ,  $c=11$

Integers: Number's ranging from  $-\infty$  to  $\infty$  and it should not have any decimal.

$2.5$ ,  $1.117$ ,  $3.14137176$

Decimal No → Float

$1.\underline{11723}$  decimals  
→ Float

3 PDS

Boolean =

No → False

Yes → True

Text data

Interpret  
\$  
%  
\ - : ;

Text data

Text data → Strings

My name is Inder

! My name is Inder !

" My name is Inder "

''' My name is Inder '''

'Inder'

" Inder "

int float Boolean

Input

Output

input ('Please enter a no')

(5)

(5) alphabet → character

String = 'My name is Inder'

'U p g r a d'

0 1 2 3 4 5

'Interpreter'

0 1 2 3 4 5 6 7 8

'Swapnil Bhikari'

0 1 2 3 4 5 6 7

'My name \$ is Ankit'

0 1 2 3 4 5 6 7 8 9 10 11 12 13

str = 'Upgrad'

str[2]

String Slicing  $\Rightarrow$  Extracting a substring from the original string

str = 'Upgrad'

'U p g r a d'  
0 1 2 3 4 5

str[2:5]  
Start      Ending index  
is not inclusive

str = 'Interpreter'  
0 1 2 3 4 5 6 7 8 9

str[2:8]

str = 'Interpreet'

str[2:8]

'derpre'  
0 1 2 3 4 5  
"drre"  
str[2:8:2]  
Start End Jump of characters

str = 'Ankur\_Bansal'  
0 1 2 3 4 5 6 7 8 9 10  
str[3:10:2]

'ur\_Bans'  
0 1 2 3 4 5 6

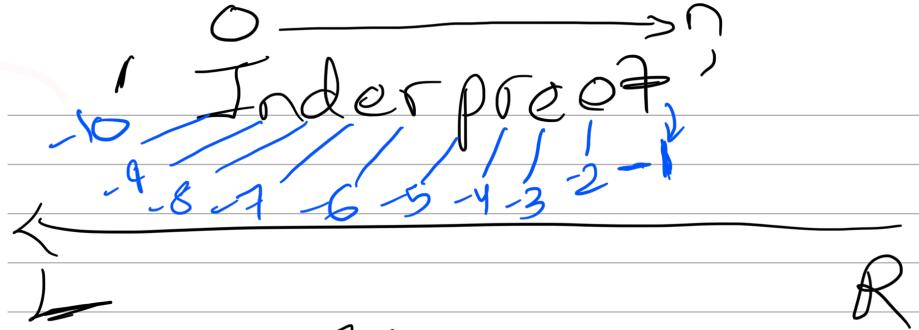
U-as

str = 'Ankur Bansal'  
0 1 2 3 4 5 6 7 8 9 10 11  
str[3:10:2]

'ur\_Bans'

U-as

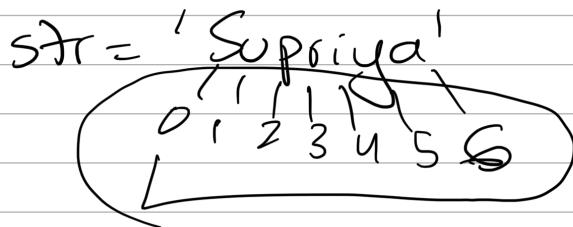
L R



str = 'Parash Wahane'

$$L \rightarrow R = str[U]$$

$$R \rightarrow L = str[-4]$$



length = The number of characters  
in a string

len(str)



'Inter'